

BIOLOGICAL EVALUATION FOREST INSECT CONDITIONS
CHALLIS NATIONAL FOREST
1969

This report is a record of major insect conditions on the Challis National Forest in 1969. Information for the report was compiled from aerial detection surveys, on-the-ground biological evaluations, and of specific infestation centers or potential problem areas reported by the Forest staff. Any questions or comments concerning this report should be directed to the Boise Zone Office.

Overall, lower levels of insect activity were observed on the Forest, except for increases in mortality caused by the Douglas-fir beetle. Logging slash and standing trees in or adjacent to several current timber sale areas are supporting heavy populations of this bark beetle. Light spruce budworm defoliation continued in four areas; however, total acreage affected was less than in 1968. Mountain pine beetle activity continued at a low level and appears to be static in lodgepole pine stands.

DOUGLAS-FIR BEETLE - *Dendroctonus pseudotsugae* Hopk.

Our prediction for increased Douglas-fir beetle activity in the area immediately northwest of the Yankee Fork-Salmon River confluence has become a reality. An October evaluation in the lower Hardin Creek area determined that an approximate 10:1 buildup had occurred. Large group infestations can be expected to spread into the travel influence zone and recreation sites from Mormon Bend east to Marshall Creek Campground, unless unpredicted natural factors intervene. Although the main infestation on the ridges between upper and lower Hardin Creeks, Blind Creek, and Rankin Creek is currently out of view from the road, there are small groups of faders showing up on slopes above Sunbeam Hot Springs. Three groups are visible on the south side of the river above upper O'Brien Campground and in Elk Creek.

Suitable roads exist from past sale activities and there is a possibility that this transportation system could be used for access into the area. Therefore, it is recommended that a salvage operation of some magnitude be initiated on the north side of the river. We do not know what the current five-year sales' program for this area is; however, there is an immediate need to remove this material before it is lost.

On the Rough Creek Logging Sale, slash was inspected in November and although jackpot burning was attempted, the intensity of the burn was not sufficient to consume the bark of residual logging slash and cull material. Overwintering broods were found throughout the area, with the exception of units cut late in summer and early fall.

During an early summer evaluation trip, considerable Douglas-fir beetle activity was observed in the Noho and Widener Camp sales. It was recommended that tractor piling and burning of slash and large cull pieces should be done this fall. Also, it was pointed out that complete bark consumption was necessary to destroy overwintering populations. Due to work scheduling, it was not possible to check the effectiveness of the slash burned this fall.

In sale areas where larger cuts are harvested progressively in three or four successive years, there is a good possibility that infesting beetles may be absorbed in the slash and destroyed by fire if good windrowing and piling is carried out. However, when incomplete slash burning occurs, emerging beetles attack the trees left on or adjacent to the sale areas.

Considering recommendations in the 1967 and 1968 insect conditions reports to the Forest on the above subject, it is apparent that better slash disposal procedures and sale administration are needed to contain present populations and reduce the potential of future buildups.

SPRUCE BUDWORM - Choristoneura fumiferana complex.

Since 1965, budworm populations have shown decreasing trends in acreage affected and intensity of defoliation. The lowest level of activity occurred in 1967, when only 1,600 acres were defoliated. In 1968, light feeding damage was recorded on approximately 33,000 acres.

Currently, the Challis portion of the Salmon River infestation is grouped into the same four general areas as last year. Following is a 1968-1969 comparison of defoliation:

<u>General Area</u>	1968 Acreage	1969 Acreage
Meyers Cove	2,400	5,300
Loon-Warm Springs Creeks	13,560	5,500
Big Aparejo-Heifer Creek	360	600
Scarface Mountain	<u>16,960</u>	<u>8,600</u>
Total*	33,280	20,000

*Defoliation, both years, classified as light.

<u>Location</u>	1969		Predicted 1970 Defoliation Percent	Class
	Egg Masses			
	Per 1,000 sq. in. foliage Actual	<u>Adjusted</u>		
Morse Cr.			15	Light
Blow Fly			15	Light
Bear Creek	.8	.8	15	Light

These infestation levels do not warrant control consideration.

MOUNTAIN PINE BEETLE - Dendroctonus ponderosae Hopk.

Two persistent endemic centers of mountain pine beetle activity were observed in Warm Springs and upper Loon Creeks. Approximately 100 lodgepole pines were killed in each of these areas in 1969.

The Warm Springs Creek infestation consists of approximately 100 dead lodgepole pines. This beetle attack area has not shown any tendency to build up during the past two years. In view of the inaccessibility of both upper Loon and the Warm Springs infestations, plus their small size, no on-the-ground evaluations were made in 1969.

Elsewhere, mountain pine beetle activity was noted in Camas, Furnace, and Elaine Creeks. These attack centers consisted of widely scattered three-to-ten tree groups and no wide scale buildups were detected.

For the time being, natural control factors appear to be keeping populations at relatively low levels. It is expected that mountain pine beetle attacks will continue at endemic levels during 1970.

In the past, considerable confusion has centered around what procedures are to be followed when a potentially serious insect infestation is detected. Procedures are spelled out in the F.S.M. (5200 series) and supplements to parent material. We feel that the manual directives are sufficient; however, it may be helpful if procedures were outlined in a more or less simplified manner. With this in mind, the following is presented for your consideration:

Evidence of insect activity
detected:

1

Fill out 5200-1.

Forest Pest Detection Field Report.

If confused - consult FSM 5221.1 and
R-4 Supplement, August 1965, No. 131.

Mail 5200-1, and well prepared specimens

In cases where immediate action
is necessary. Call the Boise
Zone Office, 342-2711, ext. 2345.
F.T.S. No. 342-2345

To: U.S.F.S. - Division of T.M.
Boise Zone Office
3320 Americana Terrace
Boise, Idaho 83706

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Entomologists at the Zone Office will:

1. Acknowledge your report.
2. Determine if a biological evaluation is necessary. In some cases an evaluation may not be necessary as previous knowledge of the problem may have already been documented.

3

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Biological Evaluation of Infestation

When an evaluation is deemed necessary the zone entomologists will:

1. Contact District of staff personnel and set date for evaluation. In many cases it is not necessary for District or staff personnel to accompany entomologists on evaluations unless they so desire.

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2. Make a biological evaluation of the problem area.
3. Prepare a written report to the Forest on biological evaluation findings.

This report may or may not recommend control.

Information in this report will be in sufficient detail so that the land manager can make a GO -- NO GO decision on control.



If the decision is "GO" for control, the following steps should be followed:

1. Forest staff will make a resource evaluation as recommended in FSM 5204.4 R-4 Supplement 33, July 1964.
2. Then the Forest will prepare a 5200-10, Project Proposal and justification statement. This can be at the District or Supervisor's Office level.
3. The completed 5200-10 should be submitted directly to the Boise Zone Office.



A finalized biological evaluation will be prepared by Zone Office personnel. This will be attached to the 5200-10 and both will be sent to the Regional Office.

The same procedures can be shown
in the following diagrammatic form.

DETECTION OF INFESTATION

EVALUATION OF INFESTATION

DECISION FOR CONTROL

GO

NO GO

FOREST PREPARES
5200-10 PROJECT
PROPOSAL AND JUSTI-
FICATION STATEMENT
AS TO WHAT VALUES ARE
THREATENED, HOW CONTROL
ADVANTAGES OUTWEIGH NO
CONTROL, CONSIDER
ECONOMIC AND ENVIRON-
MENTAL ASPECTS. SEE
FSM 5232.1. TRANSMITS
TO ZONE OFFICE

BOISE ZONE OFFICE PREPARES
BIOLOGICAL EVALUATION
TO SUPPORT PROJECT
PROPOSAL.

INFESTATION KEPT
UNDER SURVEILLANCE.

5200-10 JUSTIFICATION
STATEMENT AND ACCOMPANY-
ING BIO-EVALUATION SUB-
MITTED TO REGIONAL OFFICE.
IF APPROVED -- PROJECT
SUBMITTED TO WASHINGTON
OFFICE.

WASHINGTON OFFICE REVIEW
-- PROJECT APPROVED OR
DISAPPROVED. IF APPROVED --
FINANCING GRANTED.